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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,789	04/26/2001	JJ Garcia-Luna-Aceves	5543P002	3362

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EXAMINER	
CHOUDHARY, ANITA	

ART UNIT	PAPER NUMBER
2153	8

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/843,789	GARCIA-LUNA-ACEVES ET AL.	
	Examiner	Art Unit	
	Anita Choudhary	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

The amendment filed on September 17, 2003 has been entered. Claims 30 and 32 have been amended and are presented for further examination.

Claims 1-34 are presented.

Response to Arguments

Applicant's arguments filed September 17, 2003 have been fully considered but are not found to be persuasive. Applicant's main point of arguments is in regards to the reference shown by Ebrahim. Ebrahim shows a system for context based name resolution providing multiple bindings. In one of Ebrahim's embodiments, a request for a given service is resolved by context-dependent name resolution (col. 5 lines 6-16). Applicant argues that the request for a particular service or domain is directed to an IP address of the host that can provide the specific service and is not the same as the limitation found in claim 1 stating, "without regard as to whether the information object is actually stored at the information object repository selected according to the selection procedure."

Ebrahim shows that a request to a given service or domain name is resolved to an appropriate IP address and that the appropriate IP address (intended recipient) of the request is selected or resolved base upon predetermined criteria (see Abstract). Therefore the appropriate recipient is selected based on criteria or context of the request and not necessarily to the service requested (col. 6 lines 18-22). Name-resolution binds a "name" to an object wherein the "name" and object are of the same type. The example cited by applicant takes in to consideration the particular requested service, however applicant's attention is brought to the fact that name

resolution can include *any type* of name resolution lookup binding one object to another (col. 5 lines 6-16). Name resolution simply requires that the "name" and the object be of the same type therefore providing a valid binding. In the context-dependent name resolution a request's "name" resolution and binding to object is determined not by the particular service or domain requested but according to other criteria which do not take into regard whether the information requested is actually stored at the destination. The criterion for selection of a destination involves various other aspects such as sender's geographic location, time of day, receiver's load, and randomly generated selection of destination. This in no means is an exhaustive list of the criteria's shown by Ebrahim (see col. 6 line 18-col. 7 line 45). It is further pointed out that the criteria for selection of destination can be used singly or in any desired combination. As "C" (col. 7 lines 30-39) points out, the contents of the request in a context-based name resolution can be a criteria in selection of a destination, however this criteria is not mandatory in the selection of the destination. Ebrahim shows criteria such as resolution based on requestor information, destination information, request contents, and other factors that can be used singly or in combination with one another in selection of a destination (col. 7 lines 46-49).

Also important to note is that the DNS name resolution may be a distinct operation from the service location therefore server selection based on DNS name resolution does not take into regard the requested service thus requiring a combination of considerations for the multiple binding feature (col. 8 lines 30-53). Given this, Ebrahim shows context-based name resolution that does not have to take into consideration whether the requested information object (e.g. type of service, type of information requested, see col. 7 lines 30-39) is actually stored at the selected destination but instead considers the context in which the request for the information is received.

Applicant is encouraged to consider this reference in light of these comments and its full scope with regards to selection procedures. The rejection of the non-final action (paper #6) is repeated below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 21-28, and 31-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebrahim (EP 0817444).

In referring to claim 1, Ebrahim shows a context dependent, multiple binding name resolution system. A clients' request is resolved to the appropriate IP address according to predetermined criteria. Ebrahim discloses:

Receiving a request for an information object from a client; and (figure 3 item 10)

Determining accordingly to an information repository selection procedure (context based resolution), which of a number of information object repositories (210-230) should service the request for the information object without regard as to whether the information object is actually stored at the information object repository selected according to the selection procedure (col. 2 lines 20-39).

In referring to claim 2, Ebrahim shows mapping an address of the client to an address of the selected service (col. 4 lines 55- col. 5 line 5, col. 6 lines 24-45).

In referring to claim 3, Ebrahim shows mapping is made according to specified performance metrics (col. 3 lines 14-21, col. 6 line 24- col. 7 line 5).

In referring to claim 4, Ebrahim shows specified performance metrics comprise of methods including considering load on destination (col. 5 lines 6-16, col. 6 line 24-col. 7 line 5, fig. 3, 30).

In referring to claim 5, Ebrahim shows the address of the information object repository (destination) is selected from a number of addresses of information object repositories (destination) (col. 2 lines 20-39).

In referring to claim 6, Ebrahim shows instructing the selected destination to obtain a cop of the information object (col. 2 lines 20-39).

In referring to claim 7, Ebrahim shows direct cache selection process and local DNS cache selection process (col. 4 lines 15-30, col. 2 lines 20-39).

In referring to claim 8, Ebrahim shows the direct cache selection process comprises contacting, using a web server (150), which received the request from the client (100), to contact a web router to obtain an address of a topologically close information object repository (destination) to the requestor (col. 2 line 49- col. 3 line 5, fig. 4)

In referring to claim 9, Ebrahim shows a process further comprises of receiving, at the web server from the web router, an address for the topologically close service (col. 2 line 49- col. 3 line 5, fig. 4).

In referring to claim 10, Ebrahim shows returning from the web server to the client, a URL which contains the address of the topologically close service destination (col. 4 lines 10-30).

In referring to claim 21, Ebrahim shows a local DNS cache selection process comprises returning, from a web server (150) which received the request from the client, a URL containing a statically configured domain name (col. 2 lines 32-39, col. 4 lines 10-30).

In referring to claim 22, Ebrahim shows the local DNS cache selection process further comprises providing, from a DNS server (name resolver 180), the statically configured domain name to a web router (col. 4 lines 31-38).

In referring to claim 23, Ebrahim shows the local DNS cache selection process further comprises receiving, from the Web router, an address of a topologically close service (col. 2 line 56- col. 3 line 5).

In referring to claim 24, Ebrahim shows the DNS Server (name resolver) providing the client with the address of the topologically close destination (col. 4 lines 31-38).

In referring to claim 25, Ebrahim shows direct cache selection combined with redirect cache selection (col. 4 lines 10-20)

In referring to claim 26, Ebrahim shows direct cache selection combined with a remote DNS (300) process (see figure 5).

In referring to claim 27, Ebrahim shows direct cache selection process combined with local DNS cache (name resolver180) selection process (figure 4, col. 2 lines 20-39).

In referring to claim 28, Ebrahim shows direct cache selection with remote (300) and local (180) DNS selection (figure 5, col. 8 lines 1-16).

In referring to claim 31, Ebrahim shows direct cache selecting process used to obtain object immediately loaded without user action (col. 4 lines 40-44).

In referring to claim 32-34, Ebrahim shows redirect cache selection, local DNS (180) cache selection, and remote DNS (300) cache selection process loaded only after some user interaction (col. 4 lines 15-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-15 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebrahim in view of Johnson et al (US 6,205,477).

In referring to claim 11, although Ebrahim shows substantial features of the claimed invention, Ebrahim does not show redirect cache selection comprising of redirecting Web router. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Ebrahim as shown by Johnson.

In an analogous art Johnson shows a system for redirecting service requests among a plurality of services using portion metrics. Johnson discloses:

A redirect cache selection process comprising of contacting, using a web server (72) which received the client request from the client, a web router (82) to obtain an address of a redirecting web router which will service the request (col. 5 lines 39-53)

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Ebrahim, to employ the

features show Johnson, in order to provide dynamic and transparent scalable traffic load distribution between multiple dispersed servers (see Johnson col. 5 lines 57-61).

In referring to claim 12, Johnson shows returning from web server (72) a URL that contains address of redirecting web router (col. 10 lines 26-52, col. 11 lines 13-16).

In referring to claim 13, Johnson shows contacting the redirecting web router at the address contained in the URL with the request for the information object (col. 11 lines 18-23).

In referring to claim 14, Johnson shows redirecting from the Web router (82), the client to a topologically close server which will service the request for information (col. 5 lines 44-61).

In referring to claim 15, Johnson shows redirecting is accomplished using a HTTP redirect (col. 10 lines 26-30).

In referring to claim 29, Johnson shows combining a redirect cache selection process with remote DNS cache selection process (col. 10 line 26-52).

In referring to claim 30, Johnson shows combining a redirect cache selection process (HTTP redirect mode) with remote and local DNS selection process (col. 6 lines 61- col. 7 line 3).

Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebrahim in view of Chauhan (EP 0959 601).

In referring to claim 16, although Ebrahim shows substantial features of the claimed invention including returning from a web server a statically configured domain name (col. 2 lines 32-39), Ebrahim does not show remote DNS cache selection process with redirector DNS server. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Ebrahim, as evidenced by Chauhan.

In an analogous art, Chauhan shows a system for selecting a server from a plurality of mirrored sites. Chauhan discloses:

A remote cache selection process composes returning to client a statically configured domain name of a redirector DNS server (ONS) (col. 3 line 55- col. 4 line 4).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Ebrahim to employ the feature shown by Chauhan in order to optimize access and find the best route to a destination (see Chauhan col. 3 lines 49-52).

In referring to claim 17, Chauhan shows a system wherein remote DNS cache selection process further comprises resolving, at the redirector DNS server (ONS), the statically configured domain name to produce a resolved domain name (col. 4 line 4-13).

In referring to claim 18, Chauhan shows a system wherein remote DNS cache selection process further composes providing, from the redirector DNS server (ONS) the resolved domain name to a router (fig. 4 406a/b, col. 9 lines 1-11).

In referring to claim 19, Chauhan shows remote DNS cache selection process comprises receiving, at the redirector DNS server and from the Web router, an address of a topologically close site for the client (fig. 5 508, fig. 6 610)

In referring to claim 20, Chauhan shows providing from the redirector server the address of the topologically close site to the client (fig. 5 506, fig. 6 618).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AC
November 18, 2003

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100